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10/586,858	10/27/2006	Kazuhiko Ueda	Q95836	2917
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EXAMINER				
LOEWE, ROBERT S				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
06/14/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

10/586,858

Applicant(s)

UEDA ET AL.

Examiner

ROBERT LOEWE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/GS/US)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/6/10 has been entered.

### ***Response to Arguments***

Applicant's arguments/remarks, filed on 4/6/10, have been fully considered. Applicants argue that the compositions prepared according to the instant invention have unexpected properties, namely, adhesive strength. The 1.132 Declaration, filed on 4/6/10 attempts to show such unexpected results and further attempts to show that the unexpected results are commensurate in scope with the instant claims.

Applicants show in the Declaration that the adhesive strength is unexpectedly better even when the amount of component (B) is 20 or 10 parts by weight relative to 100 parts by weight of component (A). However, independent claim 1 recites a range of from 1 to 100 parts by weight of component (B) per 100 parts by weight of component (A). Applicants are still an order of magnitude off from the 1 part by mass of instant claim 1 and do not show any examples which employ more than 40 parts by mass. Therefore, the data presented in the Declaration is not commensurate in scope with what is claimed. If the increase in adhesion is truly unexpected as Applicants allege, then it cannot be expected that adjusting the amount of component (B) to 1 part by mass or 100 parts by mass would predictably yield compositions with the alleged unexpected adhesive strengths.

Applicants further argue that the increased adhesive strengths which are observed with the compositions according to the instant invention would be unexpected, contrary to the Examiners position made in the previous Office action that such an increase would have been expected by a person having ordinary skill in the art. Applicants argue that Comparative example 1 of the Declaration shows that high adhesive strengths may be achieved even when there is no component (B) present. However, the only difference between Comparative Example

1 and Example 6 of the Declaration is the comparative component employed. There is no component (B) in either composition; therefore Applicant's arguments here are not persuasive.

The Examiner again is of the position that Applicants observed increase in adhesive strength is not unexpected. Specifically, the addition of component (B) to the compositions serves to increase the number of hydrolyzable silyl groups present in the composition. Hydrolyzable silanes are ubiquitous in the silicone rubber coating compositions where adhesion is desired. Further, the prior art recognizes that improved adhesion to substrates stems from such hydrolyzable silane groups [see US Pat. 5,331,049 (7:35-43) and US Pat. 5,115,014 (1:24-36)]. Since component (B) is of lower molecular weight than component (A), the total amount of hydrolyzable silyl groups is higher in compositions which are comprised of, for example 100 g of component (A) alone, versus a composition which is comprised of 50 g of component (A) and 50 g of component (B).

The prior art rejection of claim 9 has been withdrawn. However, a new prior art rejection of claim 9 (and of newly added claim 11) is presented below.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (JP 05-302026) in view of Watabe et al. (JP 05-059267). Certified English-language translations of Watabe et al. and Toda et al. (both already of record) will be relied upon in the rejection below

Toda et al. teaches a composition comprising (A) an oxyalkylene polymer having a molecular weight of from 4,000-30,000 and having at least two hydrolyzable silyl-groups at the chain ends (paragraph 0002), such oxyalkylene polymers being prepared by a hydrosilylation reaction of an allyl-terminated polyether with the silane of formula (1). Formula (1) of Toda et al. satisfies the structural limitations of formula (1) of the instant claims. Integer "a" can include 0 or 1, which inherently yields a polyether having greater than 2 hydrolyzable silanes per polymer. Toda et al. further teaches 3-60 parts of a resin (paragraph 0019) such as rosin ester resins (paragraphs 0015-0016). The amounts of polymer (a) and tackifier (c) as taught by Toda et al. overlap with those ranges recited in instant claims 1 and 8. Toda et al. further teaches curing the composition onto steel plates, which qualify as a support material required by instant claim 1. While Toda et al. does not teach that the materials are thermally cured (Toda et al. teaches curing at room temperature), claim 1 is written using product-by-process format. Even though product-by-process claims are limited and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Toda et al. does not explicitly teach the addition of an oxyalkylene polymer having the structural and molecular weight limitations of instant claim 1 [component (B) of instant claim 1]. However, Watabe et al. does teach the addition of such oxyalkylene polymers (paragraphs 0030-0036) which substantially comprise polyethers and preferably have from 0.5 to 1.2 hydrolyzable groups per polymer and preferably have molecular weights of from 2,000 to 4,000. The molecular weight range and hydrolyzable group content satisfy the limitations of component (B) of instant claim 1. Watabe et al. further teaches that the amount of component (B) should preferably be from 1 to 100 parts per 100 parts by weight of the higher molecular polymer (1) (paragraph 0036), which represents the same type of higher molecular weight polymer as taught by Toda et al. Therefore, Watabe et al. teaches the amount requirement of component (B) of the instant claims. Toda et al. and Watabe et al. are combinable because they are from the same field of endeavor, namely, curable compositions comprising silyl-terminated polyethers and

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curing catalysts. Further, both Toda et al. and Watabe et al. are interested in preparing compositions which are used as sealants. At the time of the invention, a person having ordinary skill in the art would have found it obvious to add the low molecular weight oxyalkylene polymers as taught by Watabe et al. into the compositions taught by Toda et al. and would have been motivated to do so since Watabe et al. teaches that the low molecular weight oxyalkylene polymers are effective plasticizers and display low migration, allowing the compositions to be pliable (paragraphs 0003 and 0007). Watabe et al. further teaches that the low molecular weight oxyalkylene polymers are superior plasticizers when compared to other known plasticizers such as phosphoric acid esters, and aromatic carboxylic acid esters (paragraphs 0006 and 0007). Toda et al. teaches the addition of plasticizers which include the same phosphoric acid esters and aromatic carboxylic acid esters plasticizers as taught by Watabe et al. (paragraph 0023 of Toda et al.). Based on the teachings of Watabe et al., a person having ordinary skill in the art would be motivated to employ the oxyalkylene polymer plasticizers as taught by Watabe et al. into the compositions as taught by Toda et al. because such oxyalkylene polymer plasticizers have improved properties over the plasticizers taught by Toda et al. as shown by Watabe et al. (Table 1). Embodiment 5 of table 1 shows the employment of dioctylphthalate instead of the oxyalkylene polymer plasticizer showed a dramatically higher weight loss.

Claim 10: While Toda et al. does not teach curing the compositions taught therein in the manner of instant claim 10, instant claim 1 is written using product-by-process format. Even though product-by-process claims are limited and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (JP 05-302026) in view of Watabe et al. (JP 05-059267), as applied to claim 1 above, further in view of Hirose et al. (US Pat. 4,593,068). Certified English-language translations of Watabe et al. and Toda et al. (both already of record) will be relied upon in the rejection below. Note

also that this rejection uses a different patent to Hirose et al. and not the one relied upon in the previous Office actions.

Toda et al., in view of Watabe et al., render obvious the claimed composition. While neither Toda et al. nor Watabe et al. explicitly teach that the compositions may be applied to the specific support materials as required by instant claim 9, or that pressure sensitive tapes, sheets, films and labels may be produced from the compositions taught therein, such intended uses would have been obvious to a person having ordinary skill in the art based on the teachings of Hirose et al. Hirose et al. teaches curable compositions which comprise silyl-terminated polyether polymers and teaches that sealing materials and pressure sensitive adhesive materials may be formulated therefrom (1:10-12). The compositions of Hirose et al. are similar to those taught by Toda et al. and Watabe et al. Toda et al. and Hirose et al. are combinable because they are from the same field of endeavor, namely, silyl-terminated polyether compositions used as sealants. At the time of the invention, a person having ordinary skill in the art would have found it obvious to prepare pressure sensitive adhesive products via application of the compositions rendered obvious by Toda et al. in view of Watabe et al. to the support materials of instant claim 9 as well as prepare pressure sensitive tapes, sheets, films and labels and would have been motivated to do so since Hirose et al. teaches that both sealant and pressure sensitive adhesive compositions may be prepared from compositions which have the same principal ingredients as Toda et al. Hirose et al. teaches that the pressure sensitive adhesive compositions may be applied to, *inter alia*, synthetic resins or modified natural resin films, papers, cloths and metal foils (10:48-55) and may be applied to tapes, sheets, labels and foils (10:46-47), which would yield a pressure sensitive adhesive product of instant claim 11.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571)270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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/Robert Loewe/

Patent Examiner, Art Unit 1796

8-Jun-10